



- IP-based P2P Fiber for High-speed Internet Access
- Multiple SIP Numbers and Voice Channels Enabling Feature-rich Phone Services over Internet Connection
- New QoS with More Powerful Functionalities to Prioritize Traffics for Better Bandwidth
- Utilization of Firewall Protection
- Easy Installation and TR-069/TR-104 Compliance

ALL-in-one Active Fiber Gigabit IAD for FTTH Triple-play Services

Benefits

Integrated Internet Service through Fiber

The FSG2200HNU features a Gigabit WAN Fiber interface and integrates a four-port 10/100/1000 Mbps Ethernet switch, as well as 802.11b/g/n WLAN (wireless LAN) supports that allow users to enjoy more Internet service access at higher speeds.

Quality of Service (QoS) for Triple-play Traffics and Bandwidth Management

The FSG2200HNU is equipped with IP QoS features for service providers to freely design QoS policies and prioritize mission-critical services such as IPTV and VoIP base on their individual service plans. This increases network efficiency and productivity that enable service providers to deliver real multi-play applications to residential users.

TR-069 Remote Management for Easy Installation

With TR-069 standard management specifications, service providers are able to manage and configure client devices remotely without manual intervention of end-users. This unique feature not only offers users the true "plug-and-play" experience but also reduces deployment complexity, and therefore saves operation and maintenance costs for service providers.

Modular Design for CATV Service

The FSG2200HNU can be fitted with a fiber tray unit (FTU1000/2000/3000) that satisfies FTTH environment requirements as a CPE part to provide a variety of applications through fiber links such as CATV services. With the Fiber Tray design, the FTU Series can act as a WDM (Wavelength-division multiplexing) filter that multiplexes several optical carrier signals onto a single optical fiber. This allows multiplication of capacity and enables bidirectional communications over one strand of fiber for CATV or Internet services.

FSG2200HNU
Wireless Gigabit Active
Fiber VoIP IAD





FSG2200HNU

Wireless Gigabit Active Fiber VoIP IAD

Specifications

System Specifications

WAN

- 1000Base-BX10 compliance
- IEEE 802.3ah EFM compliance
- Full duplex transmission
- TX 1310 nm
- RX 1490 nm
- 10 Km distance support
- Class 1 Laser product

Router Features

- PPPoE via PAP, CHAP auth
- NAT/PAT
- NAT server (port forwarding)
- ALGs
- VPN (IP Sec, PPTP, & L2TP) pass through
- DNS proxy
- Dynamic DNS
- IP alias
- DHCP client/server
- RIP I/RIP II supported
- Support IP static route
- IGMP proxy/snooping
- IP multicasting, IGMP v1 & v2
- IP policy routing
- UPnP support
- NTP

Voice

- SIP (RFC3261) version 2
- SDP (RFC2327)
- RTP (RFC1889)
- RTCP (RFC1890)
- G.711 a/u, G.729a/b, G.726*, G.722*
- G.168 echo cancellation
- T.38 fax relay
- Transparent fax relay over G.711
- Fax/modem detection and pass-through
- Voice Activity Detection (VAD)
- Silence suppression
- Comfort Noise Generation (CNG)
- Dynamic jitter buffer
- DTMF detection and generation
- DTMF relay by In-Band and Out-of-Band (RFC2833, SIP INFO)
- Multiple SIP number supports
- Multiple channel supports

Phone Features

- Call waiting
- Call waiting with CID
- Call forwarding

- Call transferring
- 3-Way conference
- CLIP (Calling Line Identification Presentation)
- CLIR (Calling Line Identification Restriction)
- Call hold/call retrieve
- Incoming call policy (call accept/call forward/call block)*
- Second call
- Internal call
- Early media
- Music on hold*
- MWI (Message Waiting Indication)
- IVR (Interactive Voice Response)*
- Flexible SIP account assign and mapping
- Country code selection
- Speed dial (phone book)
- Flexible dial plan
- Do NOT disturb
- Distinctive ringing*
- Call retrain
- Emergency call
- Hot line

QoS

- FXS as highest priority
- 802.1Q/P VLAN
- TOS/DiffServ
- Flexible classification rule by LAN, MAC, IP...etc.
- Per VLAN IPPR (IP policy route)
- Per VLAN PPPoE
- Support 4 priority queue
- Queue Mgt.: SP, WFQ
- Traffic shaping, rate limiting

Management

- Web
- CLI (Command Line Interpreter)
- Firmware upgrade via Web/FTP/TFTP
- Remote management control: Telnet, FTP, HTTP, SNMP and DNS
- Syslog
- Text based configuration
- TR-069/TR-098/TR-104
- TR064*

Firewall Security

- Stateful packet inspection
- Prevent DoS attack
- Access control of service
- Content filtering*
- IP & generic packet filtering
- Real-time attack alert and logs

Wireless

- IEEE 802.11b/g/n compliance
- Frequency: 2.4 G
- Data rate: 300 Mbps
- Button for WLAN on/off
- WPS
- WEP 64/128-bit support
- WPA/WPA-PSK
- WPA2/WPA2-PSK
- 32 MAC address filter
- Multiple ESSID (up to 4)
- WLAN scheduling
- WDS*
- SSID VLAN-tagging (Guest access)*

Hardware Specifications

- Antenna: 2 dBi, detachable
- WAN: 1 fiber with SC/PC connector, 1000Base-BX10 compliance
- LAN: 4 port 10/100/1000 Ethernet
- CATV: CATV RF output through Coax (option: FTU2000/FTU3000)
- FXS: 2 POTs port
- Power switch: push button
- Reset button: restore factory defaults

Physical Specifications

- Item weight: 507.8 g (1.03 lb)
- Item dimensions: 254 (W) x 153.9 (D) x 41 (H) mm (10 (W) x 6.06 (D) x 1.61 (H) inches)
- Item and package weight: 1,016 g (2.24 lb)
- Packing dimensions: 326 (W) x 184 (D) x 91 (H) mm (12.83 (W) x 7.24 (D) x 3.58 (H) inches)

Environmental Specifications

Operating Environment

- Temperature: 0°C ~ 40°C
- Humidity: 20% ~ 85% RH (non-condensing)

Storage Environment

- Temperature: -25°C ~ 65°C
- Humidity: 20% ~ 90% RH (non-condensing)

Certification

- Safety: EN60950-1
- EMI: CE

**Feature Released in Future F/W upgradeable.*



Compatible Model

FTU Series	Feature Support
FTU1000*	Fiber Termination Unit
FTU2000	Fiber Termination Unit, CATV
FTU3000*	Fiber Termination Unit, CATV, WDM

*Future Release

Specifications

Features of the FTU

- Wall-mounted support
- 2 fibers capacity
- Fiber cable diameter: $\phi 3$ to $\phi 8$ mm
- Fiber cable length: 0.5 meters ~ 3 meters
- SC/APC simplex connector support
- Together work with FSG2000 series FTTH CPE
- CATV RF output through Coax (FTU2000, FTU3000)
- WDM feature integrated: CATV wavelength 1550 nm (FTU3000)

Physical Specifications

- Item weight:
FTU2000: 465 g
- Item dimensions:
FTU2000: 254 (W) x 153.9 (D) x 49 (H) mm
(10 (W) x 6.06 (D) x 1.92 (H) inches)
- Item and package weight:
FTU2000: 806.6 g (1.78 lb)
- Packing dimensions:
FTU2000: 326 (W) x 184 (D) x 91 (H) mm
(12.83 (W) x 7.24 (D) x 3.58 (H) inches)

Environmental Specifications

Operating Environment

- Temperature: 0°C ~ 40°C
- Humidity: 20% ~ 85% RH (non-condensing)

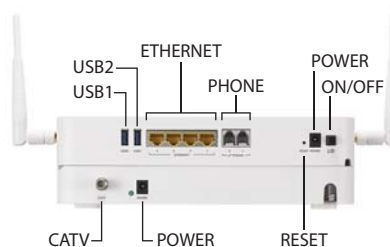
Storage Environment

- Temperature: -25°C ~ 65°C
- Humidity: 20% ~ 90% RH (non-condensing)

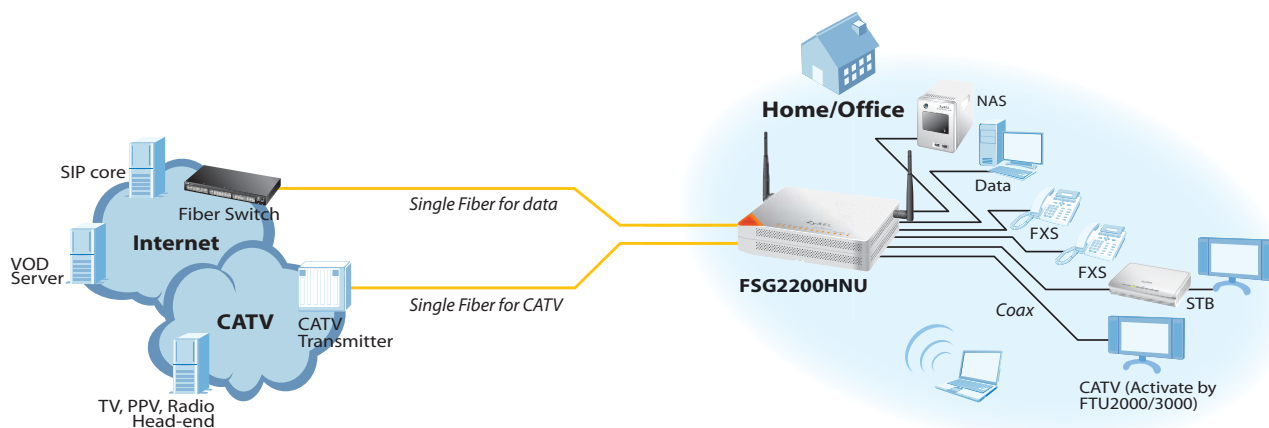
Certification

- Safety: EN60950-1
- EMI : CE

Rear Panel



Application Diagram





For more product information, visit us on the web at www.ZyXEL.com



Copyright © 2010 ZyXEL Communications Corp. All rights reserved. ZyXEL, ZyXEL logo are registered trademarks of ZyXEL Communications Corp. All other brands, product names, or trademarks mentioned are the property of their respective owners. All specifications are subject to change without notice.